

Sameer Shende

Research Interests

Tools and techniques for performance instrumentation, measurement, analysis, compiler optimizations, static analysis, and runtime systems.

Professional Preparation

Indian Institute of Technology, Bombay	Electrical Engineering	B.Tech	1991
University of Oregon	Computer & Information Science	M.S.	1996
University of Oregon	Computer & Information Science	Ph.D.	2001

Research and Professional Experience

2008 – present	Director, Performance Research Laboratory, University of Oregon
2004 – present	President, ParaTools, Inc.
2001 – 2008	Postdoctoral Research Associate, NeuroInformatics Center, University of Oregon
1994 – 2001	Research Assistant, Computer & Information Science, University of Oregon
1991 – 1994	Systems Analyst, TATA Unisys Ltd., Bombay

Selected Publications

- S. Shende, A. Malony, and A. Morris, “Improving the Scalability of Performance Evaluation Tools,” *International Workshop on Applied Parallel Computing: State of the Art in Scientific Computing PARA 2010*, Springer, 2011.
- S. Shende, A. Malony, A. Morris, and A. Wissink, “Simplifying Memory, I/O, and Communication Performance Assessment using TAU,” *DoD HPCMP UGC 2010 Conference*, Schaumburg, IL, 2010.
- A. Malony, J. Mellor-Crummey, S. Shende, “Methods and Strategies for Parallel Performance Measurement and Analysis: Experiences with TAU and HPCToolkit,” in D. Bailey, R. Lucas, S. Williams (Eds.), *Performance Tuning of Scientific Applications*, CRC Press, New York, 2010.
- B. de Supinski, S. Alam, D. Bailey, L. Carrington, C. Daley, A. Dubey, T. Gamblin, D. Gunter, P. Hovland, H. Jagode, K. Karavanic, G. Marin, J. Mellor-Crummey, S. Moore, B. Norris, L. Oliker, C. Olschanowsky, P. Roth, M. Schulz, S. Shende, A. Snavely, W. Spear, M. Tikir, J. Vetter, P. Worley, and N. Wright, “SciDAC Review,” *Journal of Physics: Conference Series* Vol. 180, 012039, Issue 16, Special Issue: Exascale, 2009.
- M. Geimer, S. Shende, A. D. Malony, and F. Wolf, “A Generic and Configurable Source-Code Instrumentation Component,” in Proc. ICCS 2009, LNCS 5545, pp. 696-705, Springer, 2009.
- A. Nataraj, A. Malony, S. Shende, and A. Morris, “Integrated Parallel Performance Views,” *IEEE Cluster Computing Journal*, Vol. 11(1): 57-73, March 2008.
- A. Morris, W. Spear, A. Malony, S. Shende, “Observing Performance Dynamics using Parallel Profile Snapshots,” *European Conference on Parallel Processing (EuroPar)*, August, 2008.
- K. Huck, A. Malony, S. Shende, and A. Morris, “Scalable, Automated Performance Analysis with TAU and PerfExplorer,” *Parallel Computing: Architectures, Algorithms and Applications (ParCo)*, pp. 629–636, September 2007.

S. Shende and A. Malony, “The TAU Parallel Performance System,” *International Journal of High Performance Computing Applications*, ACTS Collection Special Issue, Summer 2006.

S. Shende, A. Malony, and A. Morris, “Optimization of Instrumentation in Parallel Performance Evaluation Tools,” *Fourth International Workshop on Applied Parallel Computing (PARA 2006)*, June 2006.

Synergistic Activities

Lead developer of the TAU and PDT projects.

Program Committee Member, SC 2013.

Steering Committee and Program Committee Member, VECPAR 2014

Program Committee Member, HiPC 2012.

Program Committee Member, VECPAR 2012.

Collaborators and Co-Editors

Jay Alameda (NCSA), Gabrielle Allen (LSU), Robert Armstrong (Sandia), David Bailey (LBL), Richard Barrett (Sandia), Peter Beckman (ANL), Scott Biersdorff (U. Oregon), Rupak Biswas (NASA Ames), Pavel Bochev (Sandia), Francois Bodin (CAPS Entreprise, France), Jay Boisseau (U. Texas), Holger Brunst (T.U. Dresden, Germany), Laura Carrington (UCSD), Jeffrey Carver (U. Alabama), John Cary (Tech-X), Barbara Chapman (U. Houston), Daniel Chavarria (PNNL), David Cronk (Lockheed Martin), Bronis R. de Supinski (LLNL), Jack Dongarra (U. Tennessee), Leroy Drummond (LBL), Anshu Dubey (U. Chicago), Robert Fowler (UNC), Markus Geimer (Research Centre Juelich, Germany), Michael Gerndt (T.U. Munich, Germany), Jeffrey Hammond (ANL), Michael Heroux (Sandia), Jeffrey Hollingsworth (U. Maryland), Kamil Iskra (ANL), Ralph Johnson (UIUC), Lakshmikanth Kale (UIUC), Karen Karavanic (Portland State U.), Eric Knoll (NREL), Andreas Knüpfer (T.U. Dresden), Manojkumar Krishnan (PNNL), Rick Kufrin (NCSA), Steven Langer (LLNL), Robert Latham (ANL), Chee Wai Lee (U. Oregon), Sophia Lefantzi (Sandia), Rui Liu (UIUC), Robert Lucas (USC), Ewing Lusk (ANL), Allen D. Malony (U. Oregon), Osni Marques (LBL), Lois McInnes (ANL), John Mellor-Crummey (Rice), Piyush Mehrotra (NASA Ames), Barton P. Miller (U. Wisconsin, Madison), Brian Miller (LLNL), Bernd Mohr (Research Center Juelich, Germany), Shirley Moore (U. Texas El Paso), Alan Morris (U. Utah), Karla Morris (Sandia), Wolfgang Nagel (T.U. Dresden), Boyana Norris (ANL), Nicholas Nystrom (PSC), Bruce Palmer (PNNL), Craig Rasmussen (LANL), Jaideep Ray (Sandia), Nichols Romero (ANL), Robert Ross (ANL), Philip Roth (ORNL), Damian Rouson (Sandia), P. Sadayappan (Ohio State Univ.), Subhash Saini (NASA Ames), Venke Sankaran (HIARMS, DoD), Karen Schuchardt (PNNL), Karsten Schwann (Georgia Tech), Sveta Shasharina (Tech-X), Jayanarayanan Sitaraman (U. Wyoming), Allan Snively (UCSD), Wyatt Spear (U. Oregon), Kenichi Taylor (NASA Ames), Daniel Terpstra (U. Tennessee), Jeffrey Vetter (ORNL), Richard Vuduc (GA Tech), Gregory Watson (IBM), Andrew Wissink (HIARMS, DoD), Felix Wolf (Research Centre Juelich, Germany), Patrick Worley (ORNL), Katherine Yellick (LBL).

Ph.D. Advisors

Janice E. Cuny and Allen D. Malony, University of Oregon